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UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF TEXAS

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National Oilwell Varco, LP,

Plaintiff,

*versus*

Hydril Company, LP,

Defendant.

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Civil Action H-06-170

### Opinion on Interlocutory Summary Judgment

1. *Introduction.*

National and Hydril both claim that their patents on bonnets for blowout preventers are infringed. Both parties have moved for summary judgment.

2. *Background.*

Blowout preventers are used in drilling oil wells to control pressure, especially to seal a well to block sudden surges in pressure. A blowout-preventer stack ordinarily consists of a three preventers: one with a rubber annulus – a donut, one with curved rams that fit around the drill pipe, and one with blind rams that completely seal the bore. Bonnets house the rams in channels and need to open for maintaining it and internal parts. The bonnets of both devices hydraulically lock to seal the bonnets in place when they are closed.

National says that Hydril's internal method of attaching the bonnet to the body of the preventer infringes its external lock.

3. *National's Lock Patent.*

In National's preventer, the bonnet is secured to the body through parallel bolts with semicircular cross-sections that rotate halfway out of the bonnet door. The semicircular pieces pivot around their axes into corresponding cavities or slide along their axes to the bonnet like an ordinary deadbolt. In its patent, National describes the

motion of these pieces as both *linear* and *rotating*. The disputed terms are *movable*, *side face*, and *door*.

A. *Movable*.

National says that *movable* includes all forms of motion. Its patent describes and illustrates two ways to lock the bolts: around their axes, or along them. Hydril's lock uses four curved bars that form a nearly circular edge that shifts the bars' axes perpendicularly away from the opening and into slots inside the body. Resembling the crusts of pieces of a pie, these ring segments move away from the center of the door to fit grooves in the inside surface of the body's hole. Because the bars do not move parallel to each other, rotate, or move along their axes, they do not move in the same way as the bolts described in National's patent.

B. *Side Face*.

National says a *side face* is every surface of the preventer's body. In its patent, it refers to a side face only in relation to the outer surface of the body – the surface where the bonnet attaches in its design. Hydril's bonnet locks to the inside surface of a cylindrical hole through the body. A side face can be and is described in National's patent as the outer surface of the wall that forms the body of the preventer. The inside of a hole through the wall is a surface, but it is not a side face.

C. *Door*.

While a bonnet seals an opening in the body of the preventer, it also contains the channel and rams – essential mechanisms for the operation of the preventer. National says that anything that obstructs and alternately clears a path through an opening is a door and covered by the patent. To National, all objects that block an opening is a door. Its patent, however, describes a bonnet hinged like a home's front door to seal the outer surface of the preventer's body. This conventional idea of a door is one way to seal an opening. Corks and plugs also seal openings, but their mechanism is different. Hydril's bonnet is a plug that blocks the opening by attaching to the inner surface of the channel for the ram – like a champagne cork. National's is more like a

bottle cape that mechanically grips the outside of the neck. Hydril's bonnet is not a door.

Hydril has not infringed National's patent.

4. *Hydril's Bonnet Mount Patent*

The bonnet of Hydril's preventer slides away from the body along support rods. Hydril says its patent covers three ways to move the bonnet along the rods: bearings, bushings, and wheels. One of National's preventers, the LXT, uses bushings to slide the bonnet along the rods. The rods pass through linear holes with bearings in a flat plate that attaches to the bonnet. Bushings – small cylinders – allow the rod to slide through the holes. National's Continuous Circulation System includes blowout preventers whose bonnets slide on wheels. Two terms are disputed: *bonnet mounting member* and *blowout preventer*.

A. *Bonnet Mounting Member.*

Hydril's patent describes and illustrates the bonnet mount moving along support rods through wheels, bearings, or any other practical means for moving the bonnet. The essence of its patent is the combination of suspension of the bonnet on linear rods and a pivot.

During prosecution, Hydril restricted its patent by only claiming wheels. The restriction was an administrative requirement to narrow the claim to one specific method – wheels – if the general claim for suspending and sliding the bonnet along the rods was denied. 37 C.F.R. § 1.146. The general claim was allowed and the restriction was removed. Because there is no restriction, the patent covers all methods of moving the bonnet by suspending it on rods and sliding it away from the body. The motion of the bonnet on National's LXT infringes Hydril's patent.

B. *Blowout Preventer.*

One of National's products is the Continuous Circulation System. National says that it is not a blowout preventer because (a) it does not attach to the wellhead but to the rig floor, and (b) it is not capable of sealing the well. The system has several other functions like making and breaking pipe connections and circulating mud. The

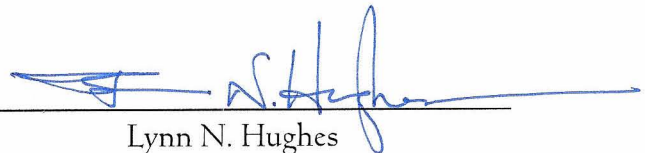
system incorporates blowout preventers, and it may reduce the risk of pressure surges. It has three stacked preventers with rams. The bonnet mounts use wheels to slide along their support rods. Wheels are undisputably claimed in Hydril's patent. National says that its product is outside of Hydril's patent because it is not capable of preventing a blowout. Hydril says that a blowout preventer is a device that seals a wellbore until pressure is controlled. National described the system as a triple blowout preventer in early marketing.

The supplemental functions included in a system do not change the structure of its components, and National itself recognized this when its manual and executives said that the CCS was made up of blowout preventers. Because the system contains blowout preventers with wheeled bonnet mounts, National infringes on Hydril's patents.

5. *Conclusion.*

Hydril does not infringe National's patent. National infringes Hydril's patents.

Signed on February 5, 2011, at Houston, Texas.



Lynn N. Hughes  
United States District Judge